

U.S. Serial No. 10/044,846  
Response to Final Office Action  
Mailed June 03, 2004

Page 6 of 8

### **THE OFFICE ACTION**

In the Final Office Action, the examiner has rejected claims 4-6 and 66-82 as being anticipated by Mindt *et al.* (US Pat. 4,296,234), and claims 4-9 and 66-82 as being anticipated by Irie *et al.* (US 5,264,495) under 35 U.S.C. § 102(b).

### **REMARKS**

Claims 4-9 and 66-82 remain in the case.

Applicants have amended claim 4 by specifying that the alkylene is an unsubstituted alkylene. The addition of this further specification is permissible based on the specification as originally filed [paragraph 16].

Reconsideration of this Application and entry of the foregoing amendments are requested. Claim 4 has been amended in view of the Final Office Action and to better define what the Applicants consider their invention, as fully supported by an enabling disclosure.

### **REJECTION UNDER 35 U.S.C. § 102**

Claims 4-6 and 66-82 have been rejected as being anticipated by Mindt *et al.* (US Pat. 4,296,234) or Irie *et al.* (US Pat. 5,264,495) under 35 U.S.C. § 102(b).

Claims 4-9 and 66-82 have been rejected as being anticipated by Irie *et al.* (US Pat. 5,264,495) under 35 U.S.C. § 102(b).

Applicants respectfully traverse the rejection as follows.

Mindt discloses a cross-linked starch wherein the cross-linking may be effected by ether linkages of the formula O-R-O, wherein R is an aliphatic group. Furthermore, Mindt teaches cross-linking agents such as epichlorohydrin; dichlorohydrin; dibromohydrin; 1,2,3,4-diepoxybutane; 1,2-7,6-diepoxyoctane; bis-epoxypropylether; and 1,4-butane-diol-bis-epoxypropylether. The use of such cross-linking agents inherently results in a cross-linked starch wherein the cross-linking is effected by ether linkages of the formula O-R-O, wherein R is a hydroxy-substituted aliphatic group.

The cross-linked polysaccharides of the present invention are prepared by reacting an activated unsubstituted-polyalkylene glycol with a polysaccharide.

U.S. Serial No. 10/044,846  
Response to Final Office Action  
Mailed June 03, 2004

Page 7 of 8

This results in a polysaccharide which is cross-linked by a backbone chain of atoms comprising repeating O-Alkylene units, wherein the alkylene moiety is unsubstituted. The Applicants submit that cross-linked polysaccharides comprising ether linkages of the formula O-R-O, as defined in the amended set of claims, and wherein R is an unsubstituted alkylene, are not disclosed by Mindt.

Irie discloses salt-resistant absorbent resins generated by subjecting at least one monomer component (A), selected from the group consisting of unsaturated carboxylic acids and salts thereof, to aqueous solution polymerization in the presence of an absorbent resin (B). Furthermore, Irie discloses that the monomer component (A) may optionally have a cross-linking agent incorporated therein in advance of the polymerization (column 4, lines 55-59), implying that the monomer component may be cross-linked. The applicants submit that the salt-resistant absorbent resins disclosed by Irie inherently comprise a significant structural portion based on the polymerization of the monomer component [*"the ratio of the absorbent resin (B) is from 1 to 30 parts by weight, based on 100 parts by weight of said monomer component (A)"*] (column 10, claim 1).

In contrast to the teachings by Irie, the cross-linked polysaccharides of the present invention do not contain any structural feature based on the polymerization of a monomer component; the monomer component being at least one unsaturated carboxylic acid. The Applicants respectfully submit that the cross-linked polysaccharides of the present invention are obtained by reacting a polysaccharide with an activated unsubstituted-polyalkylene glycol. It is therefore respectfully submitted that the cross-linked polysaccharides of the present invention are structurally significantly different with respect to the salt-resistant absorbent resins as disclosed by Irie.

Applicants therefore respectfully submit that the cross-linked polysaccharides as defined in the amended set of claims are disclosed neither by Mindt *et al.*, nor by Irie *et al.*

U.S. Serial No. 10/044,846  
Response to Final Office Action  
Mailed June 03, 2004

Page 8 of 8

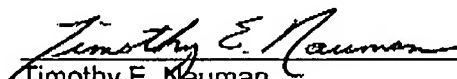
**CONCLUSION**

For the reasons detailed above, the rejections of the claims are believed to have been overcome. The present amendment requires only a cursory review by the examiner, does not raise any issues with regard to new matter, does not present new issues requiring further search or consideration, and/or places the application in better condition for appeal. Accordingly, the amendment should be entered and the application forwarded for issuance.

It is respectfully submitted that all claims presently on record in the application (Claims 4-9, 66-82) are patentable over the art of record and are now in condition for allowance. Further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such an action is earnestly solicited.

Respectfully submitted,

FAY, SHARPE, FAGAN,  
MINNICH & McKEE, LLP

  
Timothy E. Nauman  
Reg. No. 32, 283  
1100 Superior Avenue, 7<sup>th</sup> Floor  
Cleveland, Ohio 44114